

# ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

**RS** Compact & Low-profile Sized  
series

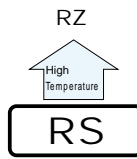


Smaller



Anti-Solvent  
Feature  
(Through 100V only)

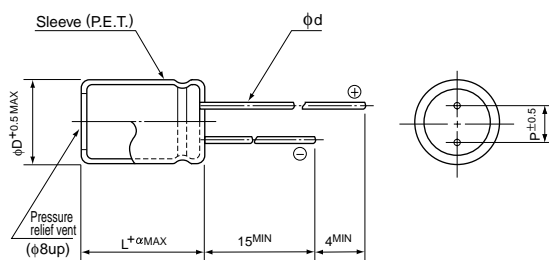
- More compact & low profile case sizes than VS series.
- Adapted to the RoHS directive (2002/95/EC).



## Specifications

Item	Performance Characteristics													
Category Temperature Range	-40 ~ +85°C													
Rated Voltage Range	6.3 ~ 400V													
Rated Capacitance Range	0.1 ~ 10000μF													
Capacitance Tolerance	±20% at 120Hz, 20°C													
Leakage Current	Rated voltage (V)	6.3 ~ 100							160 ~ 400					
	_____	After 1 minute's application of rated voltage, leakage current is not more than 0.03CV or 4 (μA), whichever is greater.  After 2 minutes' application of rated voltage, leakage current is not more than 0.01CV or 3 (μA), whichever is greater.							After 1 minute's application of rated voltage. I = 0.04CV+100 (μA) or less					
tan δ	For capacitance of more than 1000μF, add 0.02 for every increase of 1000μF. Measurement frequency : 120Hz, Temperature : 20°C													
	Rated voltage (V)	6.3	10	16	25	35	50	63	100	160	200	250	400	
	tan δ (MAX.)	0.28	0.24	0.20	0.16	0.14	0.12	0.10	0.08	0.20	0.20	0.20	0.25	
Stability at Low Temperature	Measurement frequency : 120Hz													
	Rated voltage (V)		6.3	10	16	25	35	50	63	100	160	200	250	400
	Impedance ratio ZT / Z20 (MAX.)	Z-25°C / Z+20°C	5	4	3	2	2	2	2	2	3	3	3	6
		Z-40°C / Z+20°C	12	10	8	5	4	3	3	3	4	4	6	10
Endurance	After 2000 hours' application of rated voltage at 85°C, capacitors meet the characteristic requirements listed at right.							Capacitance change		Within ±20% of initial value				
								tan δ		200% or less of initial specified value				
								Leakage current		Initial specified value or less				
Shelf Life	After storing the capacitors under no load at 85°C for 1000 hours, and after performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they will meet the specified value for endurance characteristics listed above.													
Marking	Printed with white color letter on black sleeve.													

## Radial Lead Type

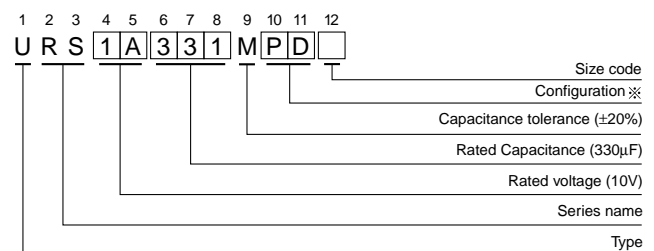


	5	6.3	8	10	12.5	16	18	20
φD (mm)	5	6.3	8	10	12.5	16	18	20
P (mm)	2.0	2.5	3.5	5.0	5.0	7.5	7.5	10.0
φd (mm)	0.5	0.5	0.6	0.6	0.6	0.8	0.8	1.0

α	(φD < 20) 1.5
	(φD ≥ 20) 2.0

- Please refer to page 21 about the end seal configuration.

## Type numbering system (Example : 10V 330μF)



### ※ Configuration

φ D	Pb-free leadwire Pb-free PET sleeve
5 - 6.3	DD
8 - 10	PD
12.5 ~ 18	HD
20	RD

Please refer to page 21, 22, 23 about the formed or taped product spec.  
Please refer to page 3 for the minimum order quantity.

• Dimension table in next page.

CAT.8100V

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## ■ Dimensions

Cap.(μF)	V	Code	6.3		10		16		25		35		50	
			0J		1A		1C		1E		1V		1H	
0.1	0R1												5×9	1.1
0.22	R22												5×9	2.3
0.33	R33												5×9	3.5
0.47	R47												5×9	5
1	010												5×9	13
2.2	2R2												5×9	26
3.3	3R3												5×9	35
4.7	4R7								5×9	30	5×9	35	5×9	40
10	100						5×9	40	5×9	50	5×9	55	5×9	65
22	220		5×9	35	5×9	55	5×9	70	5×9	75	5×9	95	5×9	90
33	330		5×9	55	5×9	75	5×9	85	5×9	95	5×9	100	6.3×9	120
47	470		5×9	75	5×9	90	5×9	100	5×9	110	6.3×9	130	6.3×9	140
100	101		5×9	125	5×9	135	6.3×9	160	6.3×9	180	8×9	220	10×9	240
220	221		6.3×9	200	6.3×9	220	8×9	290	10×9	310	10×9	340	10×12.5	420
330	331		6.3×9	250	8×9	300	10×9	360	10×9	380	10×12.5	480	12.5×12.5	530
470	471		8×9	330	8×9	360	10×9	410	10×12.5	530	12.5×12.5	590	16×15	750
1000	102		10×9	510	10×12.5	620	12.5×12.5	720	12.5×15	830	16×15	1010	18×20	1160
2200	222		12.5×15	890	12.5×15	960	16×15	1160	18×15	1360	18×20	1560	20×25	1750
3300	332		16×15	1200	16×15	1300	18×15	1460	18×20	1720	20×25	2000		
4700	472		16×15	1410	18×15	1550	18×20	1770	18×25	2050				
6800	682		18×15	1660	18×20	1850	18×25	2170						
10000	103		18×20	2020	18×25	2350							Case size φD×L (mm)	Rated ripple

Cap.(μF)	V	Code	63		100		160		200		250		400	
			1J		2A		2C		2D		2E		2G	
0.1	0R1				5×9	1.9								
0.22	R22				5×9	4.5								
0.33	R33				5×9	6.5								
0.47	R47				5×9	8								
1	010				5×9	17								
2.2	2R2				5×9	26								
3.3	3R3				5×9	35								
4.7	4R7				6.3×9	45								
10	100		5×9	60	6.3×9	70							16×15	140
22	220		6.3×9	100	8×9	130					16×15	280	●18×15	280
33	330		8×9	140	10×9	180			16×15	350	●18×15	350	18×20	350
47	470		8×9	170	10×12.5	230	16×15	420	●18×15	420	△18×20	420	★18×25	420
68	680						●18×15	490	△18×20	490	18×20	490	20×25	490
100	101		10×9	250	12.5×15	370	△18×20	590	★18×25	590	18×25	590		
150	151						★18×25	710	18×25	710				
220	221		12.5×12.5	490	16×15	620	20×25	770						
330	331		12.5×15	710	18×15	760								
470	471		16×15	900									Case size φD×L (mm)	Rated ripple

Rated Ripple (mA<sub>rms</sub>) at 85°C 120Hz

Size φ16×20 is available for capacitors marked "●"  
Size φ20×15 is available for capacitors marked "△"  
Size φ20×20 is available for capacitors marked "★"

## ● Frequency coefficient of rated ripple current

V	Cap.(μF)	Frequency	50Hz	120Hz	300Hz	1 kHz	10 kHz ~
6.3 ~ 100		~ 47	0.75	1.00	1.35	1.57	2.00
		100 ~ 470	0.80	1.00	1.23	1.34	1.50
		1000 ~	0.85	1.00	1.10	1.13	1.15
160 ~ 400		10 ~ 220	0.80	1.00	1.25	1.40	1.60

In this case, [6] will be put at 12th digit of type numbering system.